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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,300	05/17/2001	Klaus Lindemann	P277884	6583

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09/02/2003

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EXAMINER

JACKSON, BLAINE J

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 09/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/806,300

Applicant(s)

LINDEMANN, KLAUS

Examiner

Blane J Jackson

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 5, 6 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al. (U.S. Patent 6,070,067).

As to claims 1 and 8, Nguyen teaches transmitting credit/charging information to a mobile station including detecting a call termination of a call chargeable to a subscriber of the mobile station and sending credit/charging information to the mobile station as a connectionless message (OATS *message*, column 3, lines 12-43) upon the detection of the call determination (figure 2, column 3, line 61 to column to column 4, line 43).

As to claim 2, Nguyen teaches defining an upper limit for an accumulated price of telephone calls, monitoring the accumulated price of telephone calls (figure 2, step 34) and allowing a new call only if the accumulated price of telephone calls is less than the upper limit (column 4, lines 30-36).

As to claim 5, Nguyen shows releasing the call with sufficient delay to allow sending the connectionless message (OAA message) without paging the mobile station separately after detecting the termination of the call (column 4, lines 36-46)

As to claim 6, Nguyen teaches requesting a Mobile Services Switching Center (MSC) to report the termination of the call from an Intelligent Network node (prepayment node (16) figure 1), reporting the termination of the call from the MSC and the PPN determining and sending the credit/charging information to the mobile station (column 2, line 60 to column 3, line 11 and column 4, lines 36-43).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (U.S. Patent 6,070,067).

As to claim 3, Nguyen teaches the connectionless message is an OATS message (provided after call termination with reference to claim 1) but is not a short message; however, Nguyen also discloses where the transport path of an OAA

message is otherwise identical to that for SMS, a short message (column 3, lines 33-43). Since Nguyen demonstrates the use of an SMS message to the mobile terminal for the display of an estimated talk time remaining during call set-up (column 4, lines 16-26), it would have been obvious to one of ordinary skill in the art at the time of the invention to use the mechanisms provided by Nguyen to additionally and conveniently include a text message of account balance at the end of the call as done during the balance checks during call set-up.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (U.S. Patent 6,070,067) with a view to Alperovich et al. (U.S. Patent 6,138,002).

As to claim 4, Nguyen teaches a connectionless message but does not teach that the message is a Unstructured Supplementary Service Data (USSD) message. Alperovich teaches the use of a SMS or USSD message to display to a mobile subscriber information prior to answering or placing a call on that mobile station (column 3, line 53 to column 4, line 4 and column 5, line 54 to column 6, line 7). Since both the SMS and USSD are methods to send a connectionless method, a voice channel is not required, it would have been obvious to one skilled in the art the adapt the idea of Nguyen to alternatively use SMS or USSD given the system network in place.

6. Claims 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen (U.S. Patent 6,070,067) with a view to Hentila et al. (U.S. Patent 6,044,259).

As to claim 7, Hguyen teaches basic MSC/HLR call control using an intelligent node with an external application (PPN (16) figure 1) to handle pre-paid call services but does not teach an intelligent network with a Service Control Point utilizing the external application.

Hentila teaches an intelligent network governed by a service control point for subscriber administration in a telecommunications network. Hentila discloses executing a Service Logic Program (figure 5, controlling calls that are paid with a prepaid card) in a Service Logic Execution Environment (Intelligent Network) to send the credit/charging information at a Service Control Point and communicating with an external process (figure 3, subscriber database (31)/generation of pulses (32)) through a gateway between services running inside the Service Logic Execution Environment and an external application (generation of pulses in exchange for prepaid services, figure 3) where the credit/charging information is sent using the gateway (exchange within a telephone network) to the external application and subsequently to the mobile station. Hentila teaches the application of the intelligent network to controlling calls that are paid with a prepaid card and that the call can be monitored in respect of other conditions indicated in the subscriber record. Hentila further teaches at the end of the call, the subscriber's account shows the real time balance where desired further processing/instructions for this can be included in the subscriber database (column 7, line 66 to column 8, line 29). It would have been obvious to one skilled in the art at the time of the invention to expand the specific Pre Payment Node of Nguyen with the intelligent network of Hentila for the enhanced capabilities and advantages provided

through an intelligent network equipped with a Service Switching and Control point in one node.

As to claim 9, with respect to claim 8, Nguyen teaches a Pre Payment Node to configured to send credit/charging information in response to detection of the call detection (figure 1 and column 2, line 60 to column 3, line 11 and column 4, lines 36-43) but does not teach an arrangement comprising a Control Point of and Intelligent Network, the Service Control Point including a Service Logic Program configured to send the credit/charging information in response to detection of the call termination. Hentila teaches an intelligent network with a Service Control Point including a Service Logic Program configured to send the credit/charging information in response to detection of the call determination (figure 5, column 7, line 66 to column 8, line 29). It would have been obvious to one of ordinary skill in the art at the time of the invention to expand the specific Pre Payment Node of Nguyen with the intelligent network of Hentila for the enhanced capabilities and advantages provided through an intelligent network equipped with a Service Switching and Control point in one node.

As to claim 10, with respect to claims 8 and 9, Nguyen teaches a Pre Payment Node that utilizes subscriber information from the HLR to calculate the appropriate billing data for the subscriber but does not teach a separate processor configured to format the credit/charging information.

Hentila teaches an intelligent network which uses separate processors for service information (figure 3, subscriber database (31) and generation of pulses (32). It would have been obvious to one skilled in the art to utilize the pre-paid service node of Nugyen as a separate service information processor in a manner exhibited in the system of Hentila for efficient distributed rather than centralized processing.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Laybourn et al. (U.S. Patent 6,480,710) teaches a method for managing prepaid wireless service that involve SMS messages to update tariff table in the subscriber unit. McGregor (U.S. Patent 6,198,915) teaches a mobile phone system with a mobile phone having internal accounting capabilities for real time call debiting to account. Raith (U.S. Patent 6,493,547) teaches subscriber usage information such as minutes remaining in a prepaid account is provide asynchronously to the subscriber terminal during and at the end of the call by a wireless communication system. LaDue (U.S. Patent 6,088,431) teaches a system to communicate prepaid account status to the subscriber using several forward downlink data (control channel) pathways. Berg (U.S. Patent 6,108,531) teaches terminal equipment attached to the cellular transceiver to provide payment traffic information based on short data messages from the cellular radio system. Loder (U.S. Patent 5,748,720) teaches a SIM card for a mobile radio terminal that tracks, controls and displays prepaid account data.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J Jackson whose telephone number is (703) 305-5291. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (703) 305-4385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



NGUYEN T. VO
PRIMARY EXAMINER

BJJ